

WHAT IS CLAIMED IS:

1. A resin solution used for preparing resin-coated steel sheet for fuel tanks of an automobile comprising:

(i) a main solution of water soluble phenoxy resin having a number
5 average molecular weight of 25,000 to 50,000;

(j) 2 to 15 phr of melamine resin on the basis of said main solution;

(k) 10 to 20 phr of colloidal silica on the basis of said main solution;

and

(l) water soluble ethylene-acryl resin containing 50-80% of ethylene
10 and 50-20% of acryl resin and having a molecular weight of 20,000 to 50,000,
in an amount of 5 to 15 phr on the basis of said main solution; and/or 0.5 to
3.0 phr of phosphoric ester on the basis of said main solution.

2. A resin-coated steel sheet for fuel tanks of an automobile coated
with chromate film on cold-rolled steel sheet plated with a zinc (Zn) or zinc-
15 based alloy wherein, the resin solution comprises:

(m) a main solution of water soluble phenoxy resin having a number
average molecular weight of 25,000 to 50,000;

(n) 2 to 15 phr of melamine resin on the basis of said main solution;

(o) 10 to 20 phr of colloidal silica on the basis of said main solution;

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(p) water soluble ethylene-acryl resin containing 50-80% of ethylene
and 50-20% of acryl resin and having a molecular weight of 20,000 to 50,000,
in an amount of 5 to 15 phr on the basis of said main solution; and/or 0.5 to
3.0 phr of phosphoric ester on the basis of said main solution,

25 said resin solution coated on said cold-rolled steel sheet with a
thickness of 2-10 μm after drying of the resin coating.

3. A method of fabricating resin-coated steel sheet for a fuel tank of
an automobile comprising the steps of:

coating the resin solution of claim 1 on steel sheet; and

30 baking drying it at 160-250°C so as to have a coating thickness of 2-

10 μm .

4. The method of fabricating resin-coated steel sheet of claim 3, wherein coating process of said resin solution is a roll-coating process.

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